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POWER OF AT FOR UTILITY O		First Named Inventor John J. Donnelly							
PATENT APPL			CC	MPLETE IF KNOW!	V				
(37 CFR 1.	63)	Appli	cation Number	09/194,949					
Declaration Submitted	Declaration Submitted after Initia		Date	2/17/2000			4		
with Initial OR Filing	Filing (surcharge (37 CFR 1.16 (e))		p Art Unit	1648		<u>(</u>	Vici		
	required)	Exam	iner Name	D. C. Wortman	j.	: -			
As a below named inventor	r, I hereby declare th	hat:							
My residence, post office ad	dress, and citizenship	are as st	ated below next to my n	ame.					
I believe I am the original, fi names are listed below) of th	rst and sole inventor ne subject matter which	(if only c ch is clair	one name is listed below med and for which a pat) or an original, first and jent is sought on the invent	oint invention	tor (if plu :d:	ıral		
SYNTHETIC HEPATITIS C	GENES								
d : C - d C - 1 : 1		(Title of the Invention)						
the specification of which		C /1 T							
bears the Attorney Doc	ket Number and Title	of the la	ivention noted above						
OR is attached hereto									
OR was filed on (MM/DD/	YYYY) 02/17/2000)	as United States Ap	plication Number or PCT	Internatio	nal			
Application Number 09/194			— ended on (MM/DD/YY)	(Y)	(if app	plicable).	,		
I hereby state that I have revi	iewed and understand			fied specification, includin	g the clair	ns, as			
amended by any amendment	specifically referred	to above.	•						
I acknowledge the duty to dis	sclose to the Patent ar	nd Trade	mark Office all informat	ion known to me to be ma	iterial to p	atentabil	ity		
as defined in 37 CFR 1.56, in the filing date of the prior ap	ncluding for continual	tion-in-pa onal or P	art applications, material CT international filing d	information which becan	ne availabl -part appli	le betwee	n		
I hereby claim foreign priority							entor's		
certificate(s), or 365(a) of any	PCT international ap	plication	which designated at lea	ast one country other than	the United	d States o	of		
America, listed below and have or of any PCT international ap	ve also identified belo polication basing a fil	ow, by ch	ecking the box, any fore before that of the applic	eign application for patent ation on which priority is	or invento	or's certif	icate(s),		
Prior For eign Application	ppireadon naving a m	ing dice	Foreign Filing Dat			Priority	Claimed?		
Num ber(s)	Country		(MM/DD/YYYY)	Attorney Docket	Number	YES	NO		
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Additional foreign applica	tion numbers are listed	on a supp	lemental priority data sheet	PTO/SB/02B attached heret	o.				
I hereby claim the benefit under	35 U.S.C. 119(e) of any	y United S	tates provisional application	m(s) listed below.					
Application Num	iber(s)		Filing Date (MM/DD/YYYY)	Attorney	Docket N	Vumber			
60/020,494		06/11/19	·	19732PV					
60/033,534	· · · · · · · · · · · · · · · · · · ·	12/20/19	996	19732PV2					

Attorney Docket Number

DECLARATION AND

DECLARATION AND POWER OF ATTORNEY for Utility or Design Patent Application

I hereby claidesignating is not disclous 35 U.S.C. 13 37 CFR 1.56 date of this s	the Uni sed in t l2, I acl 5 whiel	ited States of he prior Unit knowledge th h became ave	America, ed States ne duty to	liste or Po disc	d belov CT inter lose inf	v and, in mational ormation	sofa app kno	r as the lication own to r	subj in tl ne to	ect matter he manner o be mater	of each provide ial to pat	of the d by th entabi	claims one first p lity as d	of this appl aragraph o efined in	ication of
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Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.															
As a named in following regi connected the	stered p			e this	applicat										
		- F	OR		<u> </u>					1:					
X Registered practitioner(s) name/registration number listed below Registration Registration															
	Name Number Name Number														
Sheldon O. Hel	ber 38,179							Jack L.	Trit	bble ————				32,633	
Direct all co	rrespon	dence to: X	Custor	ner N	lumber	00	02	10						·	
Nam e	Sheldo	n O. Heber													
Address	Merek	& Co., Inc	Patent D	epart	ment										
Address	P.O. B	ox 2000, R	Y60-30												
City	Rahwa	у		_			S	tate	NJ		ZIP	07065-0907			
Country	USA				Tele	phone	(732)594-19	958 ———		Fax		(732)5	94-4720	
I hereby deel belief are bel the like so m may jeopardi	ieved to ade are	o be true; and punishable l	d further toy fine or	hat tl impr	nese sta isonme	tements nt, or bo	were th, u	made inder 18	with U.S	the know	ledge tha	t will	ful false	statement	and
Name of Sole o							[A p	ctiti	on has bee	n filed f	or this	unsigne	d inventor	
	ven Na	am e (first an	nd middl	e [if	any])						amily N	am e	or Surna	ame	
JOHN J.								DONN	ELL	.Y 					
Inventor's Signature		17		Y \	0	ml	1				Date	3	520	tems	403
Residence: City	Mor	aga 🗸			State	CA		Cou	ıtry	US		Citi	zen shi p	us	
Post Office Address		46 Fieldbro	ok Place												
City		Moraga						State	,	CA	ZIP		9455	6	
Additional inventors are being named on the supplemental Additional Inventors(s) sheet(s) PTO/SB/02A attached hereto.															

DECLARATION AND POWER OF ATTORNEY

ADDITIONAL INVENTOR(S) Supplemental Sheet

Name of Addition	al J	oint Inventor, if any:				_ A	petiti	on has b	een filed f	or this unsigne	d inventor
Given	ı Na	me (first and middle [if	any])					F	amily Na	une or Surnar	ne
MARGARET A.					L	IŪ					
Inventor's Signature									Date		
Residence: City	Lafa	yette	State	CA		Cour	ıtry	US		Citizenship	us
Post Office Address		3656 Happy Valley Road									· · · · · · · · · · · · · · · · · · ·
City		Lafayette			Sta	te	CA		ZIP	94549	
Name of Additional Joint Inventor, if any:							petiti	on has b	een filed f	or this unsigne	inventor
Given	ı Na	me (first and middle [if	any])					F	amily Na	ame or Surnar	ne
JOHN W.					SI	HIVE	R				
Inventor's Signature			<u>-</u>					Date			
Residence: City	Chalfont State PA					Cour	itry	us		Citizenship	US
Post Office Address		Merck & Co., Inc., P.O.	0	<u>,</u>							
City		Rahway			Sta	te	ľ		ZIP	07065-090	7
Name of Addition	al J	oint Inventor, if any:] A	petiti			or this unsigne	
Given	Na	me (first and middle [if	any])		4			F	amily Na	ame or Surnar	ne
TONG-MING					F	U					
Inventor's Signature					_				Date		
Residence: City	Amt	oler	State	PA		Cour	ıtry	US		Citizenship	us
Post Office Address		Merck & Co., Inc., P.O.	Box 200	0	,						
City		Rahway			Sta	te	NJ		ZIP	07065-0907	7
		oint Inventor, if any:] A	petiti (or this unsigne	
Given	Na	me (first and middle [if	any])		+			F	amily Na	un e or Surnar	ne
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Inventor's Signature							Date				
Residence: City	State					Cour	itry			Citizenship	
Post Office Address	Merck & Co., Inc., P.O. Box 2000										
City	Rahway					State NJ ZIP 07065-0907					

Approved to the through 07/31/2006, OMB 0651-0032 SUBSTITUTE BY PTO/SB/01 (08-03), DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

DECLARATION AND	Attorney Docket Number	19732YP
POWER OF ATTORNEY FOR UTILITY OR DESIGN	First Named Inventor	John J. Donnelly
PATENT APPLICATION	CO	MPLETE IF KNOWN
(22 CED 1 (2)	Application Number	09/194,949
Declaration Declaration Submitted after Initial	Filing Date	2/17/2000
with Initial OR Filing (surcharge Filing (37 CFR 1.16 (e))	Group Art Unit	1648
sequired)	Examiner Name	D. C. Wortman

As a below named invento	a, I hereby declare	e that:									
My residence, post office as	ddress, and citizensl	hip are as st	sted below next to my nam	c .							
		, -	•	an original, first and joint inverse is sought on the invention entit	\ .						
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the specification of which		(Itile of the invention)								
<u> </u>	eket Number and Ti	itle of the In	vention noted shove								
bears the Attorney Docket Number and Title of the Invention noted above OR OR OR was filed on (MM/DD/YYYY) 02/17/2000 as United States Application Number or PCT International											
Application Number 09/194,949 and was smended on (MM/DD/YYYY) (if applicable).											
Application Number [09/194949] and was amended on (MM/DD/YYYY) [11 applicable). Thereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as											
amended by any amendment specifically referred to above.											
I seknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.											
certificate(s), or 365(a) of any America, listed below and have	y PCT international ve also identified be	application clow, by cho	which designated at least of the box, any foreign	ny foreign application(s) for pat ne country other than the Unite application for patent or invent n on which priority is claimed.	d States of						
Prior For eign Application Number(s)	Country		Foreign Filing Date (MM/DD/YYYY)	Attorney Docket Number	Priority Claimed? YES NO						
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Additional foreign applicat	tion numbers we liste	d on a supple	mental priority data three PTO	VSB/02B attached hereto.							
I hereby claim the benefit under	35 U.S.C. 119(e) of a	ny United St.		isted below.							
Application Num	ber(1)		Filing Date (MM/DD/YYYY)	Attorney Docket N	iumber						
50/020,494		06/11/199		19732PV							
60/033,534		12/20/199	96	19732PV2							
				 							

Approved. 2c through 07/31/2006, OMB 0651-0032 SUBSTITUTE B: PTO/SEAT (02-03), DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

DECLARATION AND POWER OF ATTORNEY for Utility or Design Patent Application

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X Registered practitioner (s) name/registration number listed below Registration Name Registration Name															
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Nam e	Sheldo	n O. Heber													
Ad dress	Merck	& Co., Inc.	Patent D	epart	ment										
Address	P.O. B	ox 2000, R	Y60-30												
City	Rahwa	y					St	ate	N		ZIP		07065-0	0907	
Country	USA				Tele	phone	(732))594-19 ———	58		Fex		(732)59	4-4720	
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Name of Sole of	r First	Inventor:						Ар	etitic	n has bee	n filed fo	r this 1	nzigne	inventor	
	ven Na	me (first ar	d middle	e [if	any])						amily Na	me o	r Surna	me	
JOHN J.								DONNI		¥					
Inventor's Signature	Date														
Residence: City	Mora	168			State	CA		Conn	try	us		Cittz	enship	บร	
Post Office Address		46 Fieldbro	ok Place												
City		Moraga						State		CA	ZIP		94556	5	
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Approved . se through 07/31/2006. CIMB 0651-0032 SUESTITUTE for PTO/SB/02A (08-03), Declaration (Additional Inventors)

DECLARATION AND POWER OF ATTORNEY

ADDITIONAL INVENTOR(S) Supplemental Sheet

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me of Addition	al Joh	nt Inventor, if any:			<u>ر ليا</u>	a peut				or Surname			
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ARGARET A.					LIU				$\neg \vdash$				
ventor's gnature								Dat					
sidence:	Lafay	rettc	State	CA	Co	untry	, US		Ci	tizenship			
st Office		3656 Happy Valley Road	l 		1			ZIP		94549			
ity		Lofayette	τ		State	1			ed for	this unsigned in	ventor		
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ost Office		Merck & Co., Inc., P.C		70.4	A N		ZIP		07065-0907	7065-0907			
City		Rahway			Stat	~				r this unsigned	inventor		
		Joint Inventor, If any:								me or Surnam			
Gi	ven N	ame (first and middle	[if any]	<u> </u>	FT	1							
TONG-MING		7						D	ate	4-5.	ept-2003		
Signature		DO		PA PA		Conn	us Us			Citizenship			
Residence: City	Ar	mbler	Stat							<u> </u>			
Post Office Address		Merek & Co., Inc., P.	U. Bux 2		Sta	ate	NI L	ZI	P	07065-0907			
City		Rahway	1] A	petition	has been	filed f	or this unsigne	inventor		
Name of Addi	idonal	Joint Inventor, if any:	Lif and	رار،	<u>-</u>					ame or Surna			
G	iven .	Name (first and middle	(In an)					 1		1			
Inventor's Signature						T-			Date	C'ela-a-hia			
Residence: City				ate		Cou	ntry			Citizenship			
Post Office Address		Merck & Co., Inc., I	2.O. Box	2000			1		IP	07065-090	77		
City		Rahwny			Si	ate	NI		<u>.</u>				

Attorney Docket Number

DECLARATION AND POWER OF ATTORNEY

Approved for use through 07/31/2006. OMB 0651-0032 SUBSTITUTE for PTO/SB/01 (08-03), DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

19732YP

FOR UTILITY OR DESIGN	Fir	st Named Inventor	John J. Donnelly								
PATENT APPLICATION		<u>c</u> c	MPLETE IF KNOWN								
(37 CFR 1.63)	Ap	plication Number	09/194,949								
Declaration Submitted Declaration Submitted		ing Date	2/17/2000								
with Initial OR Filing (surchar Filing (37 CFR 1.16		oup Art Unit	1648								
required)	Ext	aminer Name	D. C. Wortman								
As a below named inventor, I hereby decl	are fhat:										
My residence, post office address, and citize	nship are as	stated below next to my n	ame.								
I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:											
SYNTHETIC HEPATITIS C GENES											
the specification of which (Title of the Invention)											
bears the Attorney Docket Number and Title of the Invention noted above											
OR											
is attached hereto											
OR was filed on (MM/DD/YYYY) 02/17/2000 as United States Application Number or PCT International											
Application Number 09/194,949 and was amended on (MM/DD/YYYY) (if applicable).											
I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.											
antended by any affertament specifically refe	erred to appr	/c,									
I acknowledge the duty to disclose to the Pat											
as defined in 37 CFR 1.56, including for eon the filing date of the prior application and the											
I hereby claim foreign priority benefits under certificate(s), or 365(a) of any PCT internation											
America, listed below and have also identifies											
or of any PCT international application havin	g a filing dat	te before that of the applica	ation on which priority is claim	ed							
Prior For eign Application		Foreign Filing Date		Priority Claimed?							
Number(s) Cour	itry	(MM/DD/YYYY)	Attorney Docket Numb	et AEZ NO							
Additional foreign application numbers are	listed on a sup	oplemental priority data sheet	PTO/SB/02B attached hereto.								
Thereby claim the benefit under 35 U.S.C. 119(e)	of any United	States provisional application	n(s) listed below.								
Application Number(s)		Filing Date (MM/DD/YYYY)	Attorney Doc	ket Number							
60/020,494	06/11/	1996	19732PV								
60/033,534	12/20/	1996	19732PV2								
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Approved for use through 07/31/2006. OMB 0651-0032 SUBSTITUTE for PTO/SB/01 (08-03), DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

DECLARATION AND POWER OF ATTORNEY for Utility or Design Patent Application

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As a named in following regi connected ther	stered pra	ctitioner(s) to	it, respectively a prosecute this a Customer Numb OR Registered practi	er	on and to t	ransac	t all busi	ness in th	ne Ut	nited States	wer of Patent	substitutio and Trad	on and revocation, the emark Office
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Sheldon O. Hel	heldon O. Heber 38,179 Jack L. Tribble 32,033												
Direct all correspondence to: X Customer Number 000210													
Name	Sheldon	O. Heber											
Address	Merek &	2 Co., Inc. •	Patent Depart	ment									
Address	P.O. Bo	x 2000, R3	760-30			,				.,			
City	Rahway					Sta	te N	J	_	ZIP		07065-09	907
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JOHN J.						P	ONNEL	TA					
Inventor's Signature										Date			,
Residence: City	Mora	ıga		State	CA		Count	ry US			Citiz	enship	us
Post Office Address		46 Fieldbro	ok Place										
City		Moraga					State	CA	_	ZIP		94556	
Additional inventors are being named on the supplemental Additional Inventors(s) sheet(s) PTO/SB/02A attached here to.													

Approved for use through 07/31/2006. OMB 0651-0032 SUBSTITUTE for PT O/SB/02A (08-03), Declaration (Additional Inventors)

DECLARATION	AND POWE	R OF ATTORNEY
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ADDITIONAL INVENTOR(5)
Supplemental Sheet

			منب عدر								
Name of Addition	al Jo	int Inventor, if any:				A petiti	on has be	en filed fo	r this unsigned	l inventor	
Give	n Na	me (first and middle [if	any])				Fe	mily Na	me or Surnar	ne	
MARGARET A.					LIU						
Inventor's Signature	/	Margart a.	de	u				Date	Sept 4,	2003	
Residence: City	Lafe		State	CA	Co	untry	US		Citizenship	US	
Post Office Address		3656 Happy Valley Road				 -			· · · · · · · · · · · · · · · · · · ·		
City		Lafayette			State	CA	لـــــــــــــــــــــــــــــــــــــ	ZIP	94549		
		oint Inventor, if any:		A petition has been filed for this unsigned inventor Farmily Name or Surname							
Give		Family Name or Surname SHIVER									
JOHN W.					SHIV	EK					
Inventor's Signature								Date			
Residence: City	Chai	font	PA	Co	untry	US	Citizenship US				
Post Office Address		Merek & Co., Inc., P.O.	Box 20	00	,	- -					
City		Rahway			State	NJ		ZIP	07065-090	7	
Name of Addition	nal J	oint Inventor, if any:				A petit			or this unsigne		
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Inventor's Signature		_					~	Date			
Residence: City	Aml	bler	State	PA	C	untry	us		Citizenship	US	
Post Office Address		Merek & Co., Inc., P.O.	Box 20	00							
City		Rahway			State	NJ		ZIP	07065-090	7	
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Post Office Address		Merck & Co., Inc., P.O.	Box 20	000							
City	Rahway				State	NJ		ZIP	07065-0907		